

## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for inactivating a transmissible spongiform encephalopathy (TSE) agent, comprising exposing the TSE agent to a thermostable proteolytic enzyme,

wherein the TSE agent is a prion, and

wherein the prion is exposed to the thermostable proteolytic enzyme at a temperature that is equal to or greater than 40° C.

2. (Canceled)

3. (Currently Amended) The method of claim 21, wherein the temperature is between 50° C. and 120° C.

4. (Original) The method of claim 3, wherein the temperature is between 55° C. and 85° C.

5. (Original) The method of claim 1, comprising exposing the TSE agent to the thermostable proteolytic enzyme at alkaline pH.

6. (Original) The method of claim 5, wherein the pH is from 8 to 13.

7. (Original) The method of claim 5, wherein the pH is from 10 to 12.

8. (Currently Amended) The method of claim 1, wherein the TSE agent is a prion dimer.

9. (Original) The method of claim 8, wherein the TSE agent is selected from the group consisting of Creutzfeld-Jacob disease; variant Creutzfeld-Jacob disease; Kuru; fatal familial insomnia; Gerstmann-Straussler-Scheinker syndrome; bovine spongiform encephalopathy; scrapie; feline spongiform encephalopathy; chronic wasting disease; and transmissible mink encephalopathy.

10. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is obtained from a thermophilic organism selected from the group consisting of archaea; hyperthermophilic bacteria and thermophilic bacteria.

11. (Original) The method of claim 10 wherein the thermophilic organism is selected from the group consisting of Thermotoga maritima; Thermotoga neopolitana; Thermotoga thermarum; Fervidobacterium islandicum; Fervidobacterium nodosum; Fervidobacterium pennivorans; Thermosiphon africanus; Aeropyrum pernix; Thermus flavus; pyrococcus spp.; Sulfolobus solfataricus; Desulfurococcus; Bacillus thermoproteolyticus; Bacillus stearo-thermophilus; Bacillus sp. 11231; Bacillus sp. 11276; Bacillus sp. 11652; Bacillus sp. 12031; Thermus aquaticus; Thermus caldophilus; Thermus sp. 16132; Thermus sp. 15673; and Thermus sp. Rt41A.

12-30. (Canceled)

31. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is a serine protease.

32. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is a subtilisin.

33. (Original) The method of claim 32, wherein the thermostable proteolytic enzyme is a subtilisin derived from Bacillus bacteria.

34. (Original) The method of claim 33 wherein the thermostable proteolytic enzyme is a subtilisin derived from Bacillus amyloliquefaciens, Bacillus lentinus, Bacillus licheniformis, Bacillus subtilis or is subtilisin PB92.

35. (Original) The method of claim 1, wherein the thermostable proteolytic enzyme is selected from the group consisting of MC-A, MC-3 and MC-4.